

ABSTRACT

A system and method for generating a lattice of points that respects features in a digital image. The method comprises a process for initializing the lattice, and a process for optimizing the configuration of that lattice with respect to the image features. The optimization process operates by adjusting points of the lattice to extremize a composite function of the spatial coordinates of the lattice points. The lattice points are interpreted as atoms. Each lattice point contributes a potential function to an atomic potential field. The image represents another potential field. The composite function is a weighted sum of the atomic and image potential fields evaluated at the lattice points.